KVM over IP Switches

Aten's new generation of KVM over IP switches - KN series allows local and remote operators the ability to monitor and access their entire data center over the network using a web-based browser. In addition, they offer out-of-band access with external modem support for BIOS-level troubleshooting when the network is down.

To help you manage and control an entire data center, our KVM over IP switches support blade servers and chassis. With powerful new features such as Power Association– KVM ports can be associated with ATEN PDU power outlets for power management of servers from the KVM over IP switches' user interface.

KVM over IP switches now support the new Control Center Video Session Recorder (CCVSR) software. The CCVSR records all operations made on servers accessed through KVM over IP switches. Every operation and change from the BIOS level to logging in, from running software applications to configuring the operating system- is recorded and saved to a secure video file as evidence, without exception.

Enhanced capabilities of KVM over IP switches also include: a Message Board, Panel Array Mode™, Mouse DynaSync™, and Adapter ID.

With dual on-board NICs, the KVM over IP switches are built for reliability, to ensure 24/7 availability of remote access to all server room computers. Should one of the IP become unavailable, the other will take over in order to keep the system functioning normally.

With Altusen KVM over IP switches, IT administrators can manage their server rooms and data centers from practically anywhere – minimizing travel costs and MTTR (Mean Time to Repair) – and ensuring the highest availability of data center services possible.

KN2116A
- 16 ports
- 1 local and 2 remote user access

KN2132
- 32 ports
- 1 local and 2 remote user access

KN4116
- 16 ports
- 1 local and 4 remote user access

KN4132
- 32 ports
- 1 local and 4 remote user access

Front view

Rear View

KN4132

Features

Hardware

- High port density – RJ-45 connectors and Cat 5e/6 cable for up to 32 ports in a 1U housing
- Two or four separate buses for remote KVM over IP access
- Two 10/100/1000 Mbps NICs for redundant LAN or two IP operation
- Blade server support New!
- Supports PS/2, USB, Sun Legacy (13W3) and serial (RS-232) connectivity
- Local console provides PS/2 and USB keyboard and mouse support
- Supports multiplatform server environments: Windows, Mac, Sun, Linux and VT100 based serial devices
- High video resolution – up to 1600 x 1200 @ 60Hz – 32 bit color depth for the local console; up to 1600 x 1200 @ 60Hz with 24 bit color depth for remote sessions, at up to 50 m
- Monitor and control up to 16, or 32computers on a single level, or control up to 512 computers in a cascade*
- High video resolution – up to 1600 x 1200 @ 60Hz – 32 bit color depth for the local console; up to 1600 x 1200 @ 60Hz with 24 bit color depth for remote sessions, at up to 50 m

* Cascade-compatible KVM Switches include the following: CS9134, CS9138, CS88A, KH1508, KH1516, KH1508A, and KH1516A

Management

- Up to 64 user accounts – up to 32 users simultaneously share the control
- End session feature – administrators can terminate running sessions
- Event logging and Windows-based Log Server support
- Critical system event notification via SMTP email; SNMP trap and Syslog support
- Customizable events notification New!
- Firmware upgradeable
- Out-of-Band Access-Modem dial-in/dial out/dial back support New!
- Adapter ID Function: Stores port information allowing administrators to relocate the servers to different ports, without having to re-configure the adapters and switches
- Port Share Mode allows multiple users to gain access to a server simultaneously
- Integration with ALTUSEN CC2000 Management software
- Power Association enables the switch's KVM ports to be associated with a PDU's power outlets for remote power management of the servers from the switch's interface New!
- Manage browser access methods (Browser, http, https) New!
- IPv6 capable New!

Ease-to-Use Interface

- Local Console, browser-based, and AP GUIs offer a unified multilanguage interface to minimize the user training time and increase productivity
- Multiplatform client support (Windows, Mac OS X, Linux, Sun)
- Multi-browser support: Internet Explorer, Chrome, Firefox, Safari, Opera, Mozilla, Netscape
- Browser-based UI in pure Web technology allows administrators to perform administrative tasks without pre-installed Java software package required
- User can launch multiple Virtual Remote Desktop to control multiple connected servers from the same login session
- Magic Panel
- Full-screen or sizable and scalable Virtual Remote Desktop
- Panel Array Mode available to both local console operators and remote access users
- Keyboard/Mouse Broadcast – keyboard and mouse inputs can be duplicated on all the attached servers New!
- Video syncing with the local console – local console monitor's EDID information stored on the KVM Adapter Cables for display resolution optimization New!

Advanced Security

- Remote authentication support: RADIUS, LDAP, LDAPS, and MS Active Directory
- Supports SSL 128-bit data encryption and RSA 1024-bit certificates to secure users log in from browser
- Flexible encryption design allows users to choose any combination of 56-bit DES, 168-bit 3DES, 256-bit AES, 128-bit RC4, or Random for independent KB/Mouse, video, and virtual media data encryption
- Support for IP/MAC Filter
- Configurable user and group permissions for server access and control
- Automated CSR creation utility and third party CA certificate authentication New!

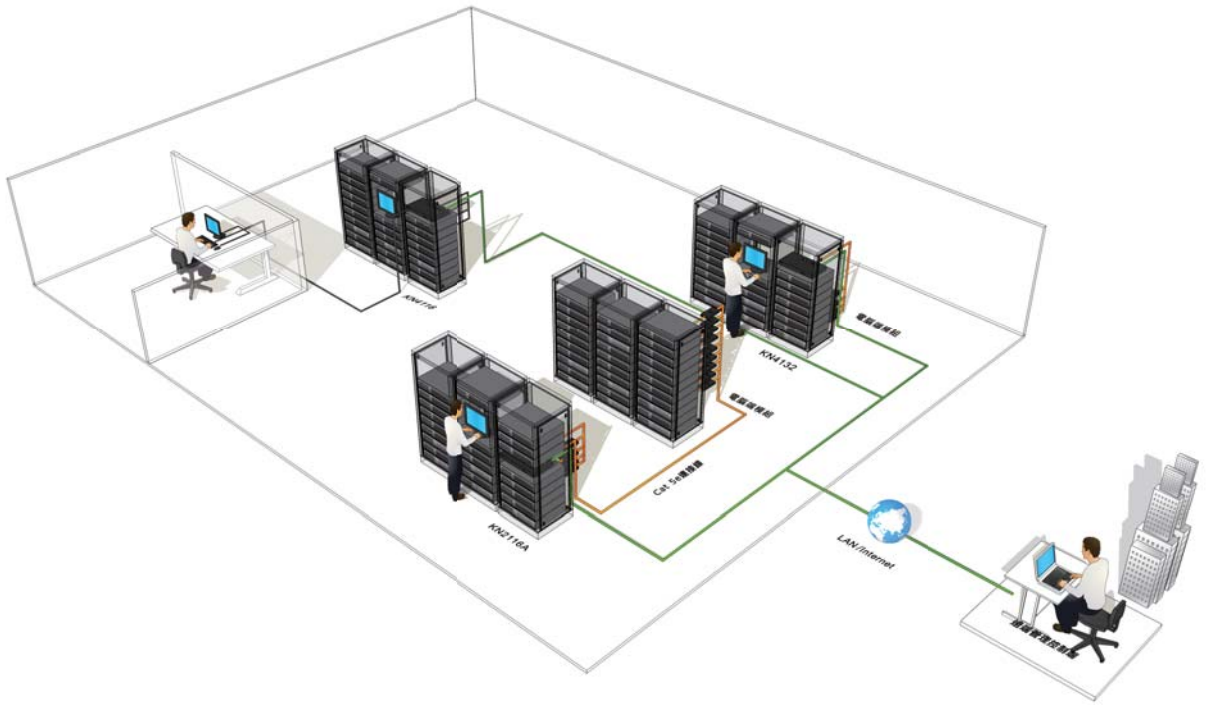
Virtual Remote Desktop

- Video quality and video tolerance can be adjusted to optimize data transfer speed; monochrome color depth setting, threshold and noise settings for compression of the data bandwidth in low bandwidth situations
- Full screen video display or scalable video display
- Message Board for communication among remote users
- Mouse DynaSync-automatically synchronizes the local and remote mouse movements
- Exit Macros support
- On-screen keyboard with multilanguage support
- BIOS-level access

Benefits

Power Association	Used in conjunction with ATEN/ALTUSEN PDUs power management device, you can associate a KVM over IP Switch's port with a PDU's power outlet, and then manage the power operation of a server from the switch's interface – a single interface point. It also enables you to associate a second outlet port if the server has a dual power supply, and lets you synchronize the operation for both power supplies. In this way, Power Association reduces maintenance time and increases management efficiency.
Blade Server Support	Support for blade server associations with KVM switch ports allows the blade server chassis and individual blades to be integrated into the sidebar tree view and accessed easily.
Improved SNMP Trap	Monitor the critical events on your system and customize the settings according to your needs. Logged events are divided into categories providing clear and complete information to administrators.
Dual IP	Dual IP operation provides the backup redundancy, and reliability. Should one of the IP become unavailable, the other will take over in order to keep the system functioning normally.
Magic Panel	A special hideaway control panel with configurable function icon enables you to control and manage the servers more convenient.
Ease-to-use user interface	A user-friendly, intuitive, GUI provides convenient, access, configuration and operation. Local Console , browser-based and AP GUIs offer a unified multilanguage interface to minimize user training time and increase productivity.
Virtual Remote Desktop	The remote desktop can appear full-screen or as a window with a flexible scaling video display. Advanced features such as the Message Board, Mouse DynaSync, and Keyboard Pass Through, create a Virtual Remote Desktop that allows users to operate servers from remote locations just as if they were actually at the local site.
Superior Video	With enhanced fps throughput for crisp responsive video display, the switches offer resolutions of up to 1600 x 1200 @ 60Hz; vibrant 24-bit color depth for rich remote session display at up to 50m.

Configurable Network Bandwidth settings	A Network setting is provided that allows you to streamline data throughput by adjusting the size of the data stream (bandwidth) to match network traffic conditions. Video performance can be adjusted so that data throughput is optimized for the available network bandwidth. With high speed LAN access, the network setting can be adjusted so that a greater amount of video information is sent, resulting in a higher quality video display. In a limited bandwidth situation, the network setting can be adjusted so that net lag is minimized.
Mouse DynaSync	Automatically synchronizes the local and remote mouse movements for perfect alignment of mouse pointers, regardless of server mouse acceleration settings.
Panel Array Mode	Panel array mode permits simultaneous monitoring of the video output of the installations' servers. Operators can monitor the screen display of up to 40 servers for real-time server monitoring.
Message Board	To alleviate the problem of access conflicts arising from multiple logins, the Message Board functions like an Internet chat program, allowing users who are logged in to instantly communicate with each other.
Intelligent Bus Assignment – Flexible Port Switching	With Intelligent Bus Assignment users are automatically assigned to one of four buses as they log in. With Flexible Port Switching, up to 32 users can be flexibly distributed over 4 separate bus sessions and multiple users are allowed to share access to one server for maximizing system efficiency.
Adapter ID	The Adapter ID Function stores port information such as the Adapter ID, OS, keyboard language, adapter name, operation modes, and etc. This enables administrators to relocate the servers to different ports, without having to re-configure the adapters and the switches.



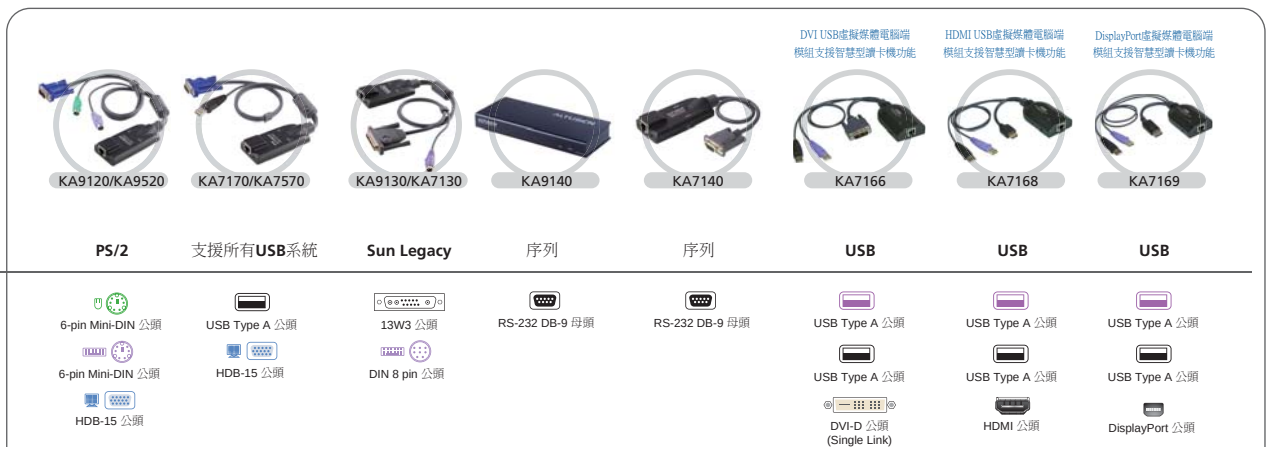
KN series Model	Description	Dimensions (L x W x H)	Weight	Power Consumption
KN2116A	16 KVM ports, 1 Local and 2 Remote User Access	43.84 x 41.35 x 4.40 cm	5.46 kg	110V / 33W ; 230V / 33.80W
KN2132	32 KVM ports, 1 Local and 2 Remote User Access	43.84 x 41.35 x 4.40 cm	5.59 kg	110V / 33.40W ; 230V / 34.20W
KN4116	16 KVM ports, 1 Local and 4 Remote User Access	43.84 x 41.35 x 4.40 cm	5.52 kg	110V / 39.60W ; 230V / 40.00W
KN4132	32 KVM ports, 1 Local and 4 Remote User Access	43.84 x 41.35 x 4.40 cm	5.63 kg	110V / 45.80W ; 230V / 46.30W

General Specifications

Connectors	LAN	2 x RJ-45 Female (Black)
	Modem	1 x RJ-45 Female (Black)
	USB	3 x USB Type A Female (White)
	PON	1 x RJ-45 Female (Black)
Switches	Reset	1 x Semi-recessed Pushbutton
	Power	1 x Rocker Switch
	Port Selection	2 x Pushbutton
LEDs	On Line	16/32 (Green)
	Selected	16/32 (Red)
	Power	1 (Blue)
	Link 10/100/1000 Mbps	2 (Red / Red + Green / Green)
Environment	Operating Temp.	0–50°C
	Storage Temp.	-20–60°C
	Humidty	0–80% RH, Non-condensing
Form Factor		19" / 1U
Network Protocol		10Base-T, 100Base-T, 1000Base-T, Auto-Sense, TCP, IP, HTTP, HTTPS, DNS, DHCP, PPP, UDP, ARP, ICMP, SMTP, RADIUS, LDAP, LDAPS

KVM Adapter Cables

The following KVM Adapter cables are required for use with the KVM over IP Switches:



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